

Statement for the Record

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Good Morning Chairman Reichert, Ranking Member Pascrell, and distinguished Members of the Committee, it is an honor to be with you today to discuss the Department of Homeland Security (DHS) Science and Technology Directorate (S&T Directorate). I appreciate your invitation to discuss my vision for and realignment of the Directorate to better meet the mission needs of our customers – the DHS Components; and the customers of our customers - the first responders and men and women that S&T enables to make the Nation safer.

I am honored and privileged to serve with the dedicated men and women, scientists, engineers and professionals who are working to secure our homeland and defend our freedoms.

The S&T Directorate has a significant role in bringing to bear solutions to the Department's homeland security challenges. During my tenure at the Office of Naval Research (ONR), especially after 9-11, I learned first hand the incredible value that a sustained, customer focused balanced basic and applied research program adds to America's ability to bring advanced technology to our (and our allies) asymmetric advantage against the enemies of freedom. It can mean the difference between life and death, victory and defeat.

President Bush noted the importance of science and technology in July of 2002 when he discussed the creation of the Department of Homeland Security "We will harness our science and our technology in a way to protect the American people. We will consolidate most federally funded homeland security research and development, to avoid duplication, and to make sure all the efforts are focused."

The S&T Directorate's enabling legislation, the Homeland Security Act of 2002, by creating the S&T Directorate and defining the mission, recognizes the importance of robust science and technology. I intend to move the organization forward by streamlining processes, improving accountability and empowering people to conduct the important work of the Directorate.

The S&T Directorate's mission is to protect the homeland by providing Federal, State, local, and Tribal officials with state-of-the-art technology and resources. There are strategic objectives to fulfill the Directorate's mission:

- Develop and deploy state-of-the-art, high performance, affordable systems to prevent, detect and mitigate the consequences of chemical, biological, radiological, nuclear and explosive (CBRNE) attacks
- Develop equipment, protocols, and training procedures for response to and recovery from CBRNE attacks
- Enhance the technical capabilities of the Department's operational elements and other Federal, State, local and tribal agencies to fulfill their homeland security related missions
- Develop methods and capabilities to test and assess threats and vulnerabilities, and prevent technology surprise and anticipate emerging threats
- Develop technical standards and establish certified laboratories to evaluate homeland security and emergency responder technologies, and evaluate technologies for SAFETY Act protections
- Support U.S. leadership in science and technology

To accomplish this mission and be successful we need to make changes to mature the organization, as pointed out in the language in both the Senate and House 2007 appropriations committee reports. I intend for the Directorate to become an organization that is a customer focused, output oriented, a full service organization as envisioned in the enabling legislation that must be cost efficient, effective, responsive, agile, and flexible. To advance the organization I intend to make the following adjustments which I call “The 4 Gets”.

Get the Organization Right

The House Appropriations Committee Report calls for S&T to develop and implement a new business model to fix the Directorate’s challenge to “adequately convey its role or how it supports the mission of DHS component agencies”. To put it simply, S&T needs to be relevant. The best minds in public sector, private sector and academia have been working diligently to bring solutions to many of the challenges facing DHS. However; under the previous construct the organization was aligned by executing entity , who was doing the work. Our DHS Customers need an organization that is easier to access in order to utilize technologies and solutions that will make their jobs better, more efficient, more cost effective, and safer. The S&T Directorate needs to be more accessible in order for the DHS Components to leverage the value added of the good work the men and women of S&T are bringing to the fight.

However, I don’t believe rearranging boxes, in-and-of-itself, will make an organization relevant. For that to happen there needs to be a change in organizational culture. The Directorate must become a model service organization focused on its customers. It cannot be isolated and removed from them. DHS S&T must engage its customers in setting priorities, defining requirements, determining capabilities needed and evaluating performance. In other words, defining what we will do for our customers, how we will do it, and how we will measure success.

My goals of the realignment are:

- Accelerate the delivery of enhanced technological capabilities to meet the requirements and fill the gaps of DHS agencies to ensure the successful accomplishment of their missions
- Establish a lean and agile, federally staffed, world class, S&T management team, consistent with DHS enabling legislation/law, and proven, successful research organizations, to develop and deliver the technological advantage necessary to ensure DHS Agency mission success, and prevent technological surprise.
- This organization must be able to span basic research thru advanced technology/prototypical demonstration to satisfy government leadership direction, customer agency requirements and emergent real world developments.
- The resulting accountable organization will be able to effectively, efficiently and objectively develop, execute and justify budgets and programs which achieve the desired mission goals
- In conjunction with other public and private institutions, proactively provide leadership, opportunities and resources to maintain and develop the necessary intellectual basis for a national S&T workforce and focused research disciplines that will ensure the safety of our homeland

The S&T Directorate will be aligned in six Divisions along enduring disciplines that will enable the Directorate to have sustained and meaningful impact for our Customers. The divisions and disciplines and examples of portfolios/programs within them are:

- Energetics – i.e., Aviation Security; Mass Transit Security; Counter MANPADS
- Chem/Bio – i.e., Chem/Bio Countermeasure R&D; Threat Characterization; Ops; and Agro-Defense; Bio-surveillance , Response & Recovery
- C4ISR- i.e.,(Information management, information sharing, situational awareness) – i.e., Interoperability and Compatibility; Intel/ Info sharing, Screening, Cyber Security R&D
- Borders/Maritime – i.e., Land Borders, Maritime/USCG, Cargo
- Human Factors – i.e., Social-behavioral- Terrorist Intent, Human response to Incidents, Biometrics
- Infrastructure/Geophysical Science – i.e., Critical Infrastructure Protection, Regional State and Local Preparedness and Response, Geophysics

Each Division would have at least one Section Director of Research and a Section Director of Transition who would work with the Directorate’s Director of Research – (focused on Research which will also house the University Programs including Centers of Excellence) -- and Director of Transition (focused on Applications) respectively. The Director of Transition will coordinate within the Department to best expedite technology transition.

The Director of Innovation (HSARPA), as specified in the law will “Support basic and applied homeland Security research to promote revolutionary changes in technologies; advance the development, testing and evaluation, and deployment of critical homeland security technologies; and accelerate the prototyping and deployment of technologies that would address homeland security vulnerabilities” and will work with each of the Division heads in doing so. HSARPA will also work with each of the Division heads to accelerate technology transition.

This structure will allow a healthy balance between research and applications, risk and time to delivery. Investments will span across Transition Readiness Levels (TRL), including short - term (under 3 years); mid- term (3-8 years); and long term (over 8 years). This push and pull between research and application as well as tension over applied research resources will allow for a balanced portfolio of investment.

In addition to the Divisions the organization will have additional components:

- Reporting to the Director of Research, the Office of National Laboratories would be responsible for the coordination and utilization of the Department of Energy national laboratories, Plum Island Animal Disease Center and National Bio-defense Analysis and Countermeasures Center.
- Reporting to the S&T Chief of Staff, the Business Operations and Services Directorate would serve as a centralized service organization and house Human Capital, Security, Acquisition, CIO and Facilities and Logistics.
- There would be a Director of Test and Evaluation and Standards.

- The Director of S&T Special programs would oversee the S&T Directorate's highly classified projects.
- A Director of Government Agency and International Liaison would help facilitate government-wide S&T coordination and provide outreach to our allies.
- Reporting directly to me would be Homeland Security Institute as well as CFO, Counsel and Corporate Communications.

A new organization is only as good as the people you have working in it which brings me to the next "Get".

Get the People Right

The S&T Directorate has resources across public sector, private sector and academia; I refer to this as the Homeland Security Research Enterprise. Thanks to the enabling legislation, we have the ability to leverage DHS labs, DOE's National Labs, Homeland Security Institute and the DHS Centers of Excellence. Additionally we utilize other agencies' resources including DoD, NIST, HHS, USDA, EPA, NSF, DoD FFRDCs, industry, international partners and stakeholder associations.

I will enable the best and brightest - scientists, engineers and professionals (associates) - to meet the mission and take a holistic approach to fill technology capability gaps of the Department.

Because the S&T Directorate will be output driven we will have a healthy balance between research and applications. This diversity will be mirrored in the skills and expertise of our people. We will have matrixed staff across the Divisions that will focus on research and on transition.

Once we have the organization structure and the people in place, we need the tools and processes to ensure accountability.

Get the Books Right

The S&T Directorate will execute appropriations as intended by Congress. We will also be fiscally accountable to our DHS Customers, the Congress and the American people.

The S&T Directorate CFO, Richard Williams reported onboard with me. He comes out of the DHS Program Analysis and Evaluation Office to help put in place the systems and protocols to enable S&T Directorate to be fully responsive and transparent in the development, presentation and execution of the budget.

The next step is to get the focus of the work aligned to better enable the customer.

Get the Content Right

My years at ONR have taught me that an R&D organization must take to heart customers' insights, priorities, and goals. Too often those in science and technology fields say "we know

what you need”. They do research because it is interesting and holds potential for future capabilities not because it meets a specific goal or objective. While this type of unfettered scientific research is important the S&T Directorate must also focus and prioritize resources to be output oriented and customer driven. We must set our priorities to align with National and Department of Homeland Security priorities. S&T’s work will be targeted at enhancing capabilities and customers needs.

Last year, as Secretary Chertoff was rolling out his second stage review, he emphasized the need of the Department to focus on risk. “We cannot protect every single person against every single threat at every moment and in every place. We have to, with our finite resources and our finite employees; be able to focus ourselves on those priorities which most demand our attention. And that means we have to focus on risk. And what does that mean? It means we look at threat, we look at vulnerability, and we look at consequence.” The S&T Directorate will endeavor to fulfill risk based needs of our customers. This will be accomplished by enhancing the Customer’s operational capabilities

The Four “B’s”

To quickly capture and articulate broad risk based priorities, I internally refer to them as the “4 B’s”:

- Bombs,
- Borders,
- Bugs (Biological) and
- Business – (protecting the processes that make our economy function).

To meet these priorities, the S&T Directorate will work with our customers to better focus our research and enable our customers in order to better secure our nation in those core areas.

To ensure customer product alignment, the S&T Directorate will utilize Integrated Products Team (IPT). These IPTs will be customer led. DHS Management will be included for Acquisition expertise/ involvement. An S&T Division Head will be a team member, as will, when appropriate, the end-user. Test and Evaluation will be an important part of the IPT process to ensure that products and capabilities we deliver will meet the customers’ and first responders’ needs.

The S&T Directorate will restructure its investment portfolio to create a balance of potential project success , cost, impact and the time it takes to deliver. To achieve that balance there needs to be a healthy tension between Research and Applications. We will work projects that are across the spectrum of Transition Readiness Levels (TRL). Our investment portfolio also has to be prioritized across long-term research, mandated spending, product applications and leap ahead “game-changing” capabilities. I look forward to working with you and your staff to get the right mix for the S&T Directorate investment portfolio.

My goal is that, as a result of this S&T Directorate realignment, when the President’s fiscal year 2008 budget is sent forward to Congress, this Committee, and the Appropriators, will see that DHS S&T is a more responsive, agile, customer-focused organization, one that better enables our nation to prevent, protect, respond, and recover from acts of terrorism, natural disasters or other emergencies.

Thank you for the opportunity to discuss the realignment. I would be pleased to address any questions you may have.